

REMARKS

Claims 1-10, 13-20, 23-30, 33-45 and 51-65 are pending in the application.

Claims 1-10, 13-20, 23-30, 33-45 and 51-60 stand rejected.

Independent Claims 1, 15, 25, 35, and 38 have been amended. Support for the amendments can be found in at least paragraph [0027] of the present Specification.

Claims 61-65 have been added. Support for the newly-added claims can be found in at least paragraphs [0029]-[0030] of the present Specification.

Rejection of Claims under 35 U.S.C. §103

Claims 1-10, 13-20, 23-30, 33-45, and 51-55 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over by Saksio, U.S. Patent Publication No. 2004/0105390 (“Saksio”), in view of Gai et al., U.S. Patent No. 6,535,491 B2 (“Gai”) and Hebert, U.S. Patent No. 6,728,780 (“Hebert”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

Applicants respectfully submit that Saksio, Gai, and Hebert, taken alone or in any permissible combination, fail to disclose, teach, or suggest the limitations of the independent claims. The cited references, taken alone or in any permissible combination, fail to disclose, teach, or suggest “in response to detecting a recovery of said first link, maintaining said communications channel between said downstream portion of said communications network and said upstream portion of said communications network by re-enabling the port of said network

element coupled to a second link between said network element and said downstream portion of said communications network,” among other limitations of the independent claims. By contrast, Saksio discusses the propagation of a critical link failure to dependent links (e.g., Saksio, Abstract). By further contrast, Gai discusses the rapid reconfiguration of computer networks by transitioning a back-up port from a back-up state to an active state, in response to determining an active forwarding port has failed (e.g., Gai, Abstract, FIG. 3E. and accompanying text). Hebert, by further contrast still discusses the configuration of a backup interface with the parameters of the primary interface, in the event of a failure of the primary interface (e.g., Hebert, Abstract, FIG. 5, and the accompanying text). In each of these references, whether taken alone or in any permissible combination, there is simply no disclosure, teaching, or suggestion, of maintaining the communications channel by “re-enabling the port of said network element coupled to a second link between said network element and said downstream portion of said communications network,” as claimed. Paragraph [0031] of Sakiso discusses the propagation of a link-up state when a LAN switch or router is repaired. However, such propagation of a link-up state results in all links dependent on the LAN switch or router being placed in a link-state only. Nothing in Saksio (or any of the other references, taken alone or in any permissible combination with Saksio) discloses, teaches, or suggests that this link-up propagation is performed to maintain a communications channel, as recited in the independent claims. In fact, the cited references, taken alone or in any permissible combination, are completely oblivious to the maintaining a communications channel as recited in the independent claims, as outlined below.

One with skill in the art would not even expect the cited references, taken alone or in any permissible combination, to disclose, teach, or suggest “in response to detecting a recovery of said first link, maintaining said communications channel between said downstream portion of

said communications network and said upstream portion of said communications network by re-enabling the port of said network element coupled to a second link between said network element and said downstream portion of said communications network,” as recited in the independent claims. Such a disclosure, teaching, or suggestion is unexpected to one with skill in the art because the cited references do not distinguish between the primary and backup interfaces.

In marked contrast, the independent claims explicitly state that the communications channel is maintained by re-enabling links dependent on a recovered first link without intervention by an outside source such as a system administrator. Such a re-enabling of links to maintain the communication channel clearly indicates that the first link is a preferred link for the maintenance of the communications, thus delineating a clear difference between a primary link (of which the first link is a part) and a backup link.

Moreover, the cited references do not offer any way to “fail back” to a primary interface when that primary interface becomes operational again. For example, using the systems discussed in the cited references, once a primary interface (which may be a higher bandwidth interface) has failed and the communication is failed over to a backup interface (which may be a lower bandwidth interface), the systems fail to provide any way to transition back to the primary interface. There are environments in which it is desirable to maintain a connection via a high-bandwidth interface as often as possible. Using the systems disclosed in the cited references would require a system administrator to manually switch the connection back to the primary interface from the backup interface. Moreover, such a system administrator would have to wait until such a switchover were possible, which is an untenable situation. Again, in marked contrast, re-enabling links dependent on a recovered first link in order to maintain the

communications channel (as claimed) clearly shows a “fail back” to a primary interface (of which the first link is a part) once the first link is recovered.

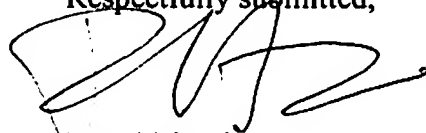
Claims 56-60 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Saksio, U.S. Patent Publication No. 2004/0105390 (“Saksio”), in view of Gai et al., U.S. Patent No. 6,535,491 B2 (“Gai”) as applied to claims 1, 15, 25, 35 and 38 respectively above, and further in view of Hamami, U.S. Patent No. 5,959,972 (“Hamami”). While not conceding that the cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that the cited references, or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed. Pages 27-28 of the Office Action do not cite Hamami as disclosing, teaching, or suggesting any elements of independent Claims 1, 15, 25, 35, and 38. Thus, Claims 56-60 are patentable over Saksio, Gai, and Hamami, taken alone or in any permissible combination, by virtue of their dependency on independent Claims 1, 15, 25, 35, and 38. Thus, Applicants respectfully request that the rejection be withdrawn.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5084.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Liu', is written over a horizontal line.

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